

FORM PTO-1390 (Modified)
(REV 11-2000)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

50029-00002

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

10/069850

INTERNATIONAL APPLICATION NO.
PCT/DE00/02969

INTERNATIONAL FILING DATE
30/08/2000

PRIORITY DATE CLAIMED
31/08/1999

TITLE OF INVENTION

**METHOD FOR EFFECTING THE PREVENTIVE AND/OR CURRENT DISPLAY OF TRANSMISSION COSTS
DURING THE TRANSMISSION OF INTERNET AND ONLINE DATA**

APPLICANT(S) FOR DO/EO/US

KELLER, Walter

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☐ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☐ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☒ A copy of the International Search Report (PCT/ISA/210).

Items 13 to 20 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
20. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
22. ☒ Certificate of Mailing by Express Mail
23. ☒ Other items or information:
return postcard

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 10/069850		INTERNATIONAL APPLICATION NO PCT/DE00/02969		ATTORNEY'S DOCKET NUMBER 50029-00002	
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24. The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :

☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1040.00

☒ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$890.00

☐ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$740.00

☐ International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$710.00

☐ International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00

ENTER APPROPRIATE BASIC FEE AMOUNT =

Surcharge of \$130.00 for furnishing the oath or declaration later than - ☒ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	9 - 20 =	0	x \$18.00		\$0.00
Independent claims	1 - 3 =	0	x \$84.00		\$0.00
Multiple Dependent Claims (check if applicable). <input checked="" type="checkbox"/>					\$280.00
TOTAL OF ABOVE CALCULATIONS =					\$1,300.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27). The fees indicated above are reduced by 1/2.					\$0.00
SUBTOTAL =					\$1,300.00
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492 (f)).					\$130.00
TOTAL NATIONAL FEE =					\$1,430.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). <input checked="" type="checkbox"/>					\$40.00
TOTAL FEES ENCLOSED =					\$1,470.00
					Amount to be: refunded \$
					charged \$

CALCULATIONS PTO USE ONLY

a. ☒ A check in the amount of \$1,470.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. A duplicate copy of this sheet is enclosed.

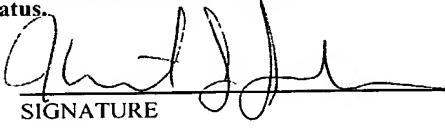
c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-1419 A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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Kenneth J. Johnson
NAME

36,834
REGISTRATION NUMBER

February 28, 2002
DATE

DeTeMobil Deutsche Telekom MobilNet GmbH

A process for the preventive and/or current display of transmission costs in the case of transmissions of Internet and on-line data

The invention relates to a process for the preventive and/or current display of transmission costs in the case of transmissions of Internet and on-line data from a services/information provider to a subscriber in accordance with the over-arching concept of patent claim 1.

The basic application possibilities for Internet operation, with the pertinent protocol structures, are sufficiently well known. Accordingly, the most common applications consist of looking at (so-called browsing) of Internet pages, which are written in hypertext markup language, HTML, for example, and are loaded into the user's machine, a personal computer, PC, for example, via hypertext transfer protocol, HTTP over the Internet, which is based upon TCP/IP as a transport protocol. This is probably the most common application. The software requirement for Internet operation that is imposed upon the user is the presence of a so-called browser, as a rule.

Next, as an additional point of emphasis, comes the possibility of transferring wide-ranging files of arbitrary content. These files are transferred, for example, by means of a File Transfer Protocol, FTP, in which a frequent application may be found, for example, in the so-called downloading of new software releases for the PC field. Here, very long transmission times can sometimes occur if it is a matter of large amounts of data in combination with slow Internet connections.

Another point of emphasis is the transmission of electronic mail, the so-called E-mails, for example, by means of Simple Mail Transfer Protocol, SMTP, in which case, the matter in hand, preferably, is quite small quantities of data, which can, however, be supplemented by attachments. These attachments, then, are frequently files with text, data, or pictures, though here, once again, large amounts of data can be involved.

The usual method of proceeding, which has been introduced in the Federal Republic of Germany, at least, for Internet access or on-line access, consists of the fact that the subscriber, with his PC, is connected via a telecommunications network, such as the ISDN network, for example. With the latter, he creates a dial-up connection to the appropriate Internet Access
 5 Provider (IAP). After that, he avails himself of either the IAP's offerings, which provides, if applicable, services of its own, such as weather forecasts, discussion forums, offers of goods for sale in conjunction with partner firms, etc. (IAP is, simultaneously, the on-line SP or ISP), or he uses the IAP as a transition to the Internet Service Providers, ISP's, who are connected to the Internet worldwide. As a rule, however, this communication occurs only if the subscriber has a
 10 contractual relationship with both a telecommunications firm (Telco) as IAP access, as well as an additional contractual relationship with an IAP, which can, according to the example that was cited above, itself, be an ISP.

The structure of the transmission costs is correspondingly complicated. As a rule, it is comprised
 15 of monthly basic fees for both providers (Telco and IAP), as well as of connection-specific current costs for the individual session. Additional costs, which are covered by a separate bill, billed to a credit card or, in some cases, such as T-online, for example, covered by the telephone bill by means of special contractual relationships between ISP and provider, accrue for those
 20 availing themselves of any ISP services.

The problem associated with proceeding in this manner consists, in particular, of the fact that the subscriber, until such time as the ex post facto monthly telephone bill arrives, has no clue at all as to the costs he has incurred with his Internet access. The only indication he possesses at
 25 present is the optional indication of file size, which is displayed in the FTP download procedure by many ISP's. With this information, for example, the customer can calculate his telephone company's transmission costs, as well as his IAP's costs per session himself, before demanding the data as a download.

However, this process is not altogether trivial. First of all, the customer must know his telephone
 30 line's data transmission speed and that of his terminal adapter or modem, as well as the protocol overhead of the Internet and application protocols, more or less. Then he calculates the required

transmission time and after that, while bearing the individual, complex rate structures in mind, the Telco and IAP costs associated with them. When proceeding in this manner, there is not much cause for joy, particularly since the rate of transmission, for reasons having to do with network or server overload at any arbitrary point in the complete connection, as well as in the case of a bad telephone line with frequent automatic repetitions, can experience additional delays.

In the case of the current networks, which are line-supported, both the Telco and the IAP calculate the duration of the session, in terms of time, regardless of how much data is transferred in this time or regardless of how long the customer who is inclined to do so requires for any calculation of his costs he might undertake.

Volume pricing on the part of the Telco, instead of time-based pricing, would change nothing, in principle, since this stretch represents just a portion of the transmission, and the remote ISP, in the case of its informational offer, which is created for worldwide access, cannot address specific Telco-related concerns of individual subscribers, and thus, presumably for the future as well, it will display only the quantity of data [transferred], and only in the case of an FTP transfer, if at all.

Therefore, an improvement of the situation by means of the introduction of a suitable process is necessary.

It is the underlying task of the present invention to propose a process on the basis of which the Internet or on-line subscriber, prior to any pending transmission of at least large quantities of data, can be supplied with information concerning the transmission costs as a current and/or preventive measure, regardless of the transmission method that is used.

The characteristic features of patent claim 1 meet this task.

The essential characteristic of the invention is that prior to any pending transmission of data, the service/information provider transmits an additional protocol element (the price element), containing an indication of the data volume that is pending, to the subscriber (recipient), such that the protocol element, as such, is acknowledged by the transit nodes that are involved in the

transmission and/or by the telecommunications networks, and the protocol element is ultimately evaluated in the recipient's terminal unit, and a read-out of the sum total of pending transmission costs is displayed.

- 5 According to the invention, the advantage is achieved by virtue of the fact that the subscriber has, at all times, control over the transmission costs that have been incurred and those that will yet be incurred i.e. the actual total costs that are incurred with transmission.

The protocol element can, to good advantage, contain additional price-relevant criteria from the
10 service/information provider, such as, for example, quality of service, transmission priority, routing instructions, price group, contractual information, security classifications, sender's details, etc.

The evaluation of the cost data contained within the protocol element by the terminal unit is
15 simple. In a preferred application, this can occur by means of particular options in the browser software that is used, which the protocol acknowledges as such, which perform the
• corresponding calculations and display the result.

An extension of the invention makes provision for the fact that the browser software causes an
20 additional menu (ME), with alternative menu points to be displayed, by virtue of which the subscriber can institute the transmission of the software or, alternatively, reject it. This can be achieved by corresponding information fields in a page of offerings that is transferred by the service or information provider and displayed at the terminal unit. Furthermore, the menu can offer, as options, additional menu points that initialize additional activities at the end unit, such
25 as, for example, creating a later automatic connection to the service provider with the institution of the data transmission in question at a more favorable time, from the perspective of costs.

Another extension provides for the introduction of a particular protocol element, which is transferred to the terminal user's machine prior to any transfer of data at all, thus, for example, a
30 HTML page to the terminal unit, thus rendering it possible for the user to elect whether he would like to receive these data or not. This measure serves, in particular, as a protective mechanism for

rapid Internet access on the part of the user, where, for example, a wide range of HTML pages that are expanded with picture elements are sent even before the user can react and disrupt the data transfer in any concerted way.

5 In this regard, provision is made so that an individual, user-specific limitation on data or costs can be programmed by the user, beneath which the automatic delivery of data occurs, in which the user's terminal unit automatically confirms all transfer requirements.

10 In an alternative type of embodiment, provision is made so that a data or cost limit that is set by the subscriber is automatically transmitted to the service/information provider, after which the services/information provider, for his part, automatically asks for user confirmation/denial of the pending transfer above this limit.

15 Furthermore, a particular protocol element can be introduced for all current data transfers, and it can be sent along with every transmission of data, as a result of which, especially in the case of transmission networks that are charged by volume, a clear, current overview of costs is rendered possible.

20 In what follows, using figures in the drawing that here describe just one possible embodiment type by virtue of the example of an Internet transmission and a personal computer (PC) as a terminal unit, the invention is elucidated, such that by virtue of the drawing figures, additional features, areas of application, and advantages of the invention result.

Figure 1 shows a representation of a typical Internet connection;
 25 Figure 2 shows a representation of an Internet connection with an expansion for a preventive cost display according to the invention.

Figure 1 shows, schematically, an Internet connection and the components that are involved in constituting it. A subscriber having, for example, a PC as terminal unit 1 is connected to a
 30 telecommunication network 3 by way of a modem 2. The transition to the Internet access provider 4, which creates the connection to the worldwide Internet 5, exists here. In this

example, the subscriber communicates with a remote service provider 6 (ISP: Internet Service Provider), who makes a certain offer, an Internet page 7, for example, and transmits it to terminal unit 1 where this page is represented on the display 8. In reality, a service provider 6 often does not make all offers directly, but rather, in a manner comparable to stretch 1-3, creates a connection to so-called host computers of outside firms, which, for their part, use the service provider as an Internet access provider. In the present mode of observation, however, this circumstance is not critical, and, for purposes of simplification, it was not depicted.

The transmission of the contents, here page 7, occurs here by means of an end-to-end protocol, so that the content for the transit provision node (router) cannot be seen.

For that reason, support of a cost display on the part of the network is, in principle, not possible.

Therefore, the present invention takes another route. According to Figure 2, an additional protocol element 9, which can recognize the transit nodes that are involved in the transmission (components or network elements) 5, 4, and 3, is sent by the service provider 6 with each offer of transmission. This protocol element 9 contains identifying characteristics pertaining to the data to be transmitted, such as indications regarding the size of the quantity of data to be transmitted, any additional costs that might be incurred, and other characteristics, such as, for example, quality of service, priority of transmission, sender recognition, price categories, routing instructions, etc.

All transit nodes 5, 4 and 3 that are involved in the transmission recognize protocol element 9, and, after the corresponding calculation, they add their own transmission costs, which are incurred to protocol element 9 if necessary, as a result of which, the latter is constantly expanded, and they send protocol element 9 to the next node. In this way, the protocol element collects all relevant constituent costs of the pending transfer on its journey to the subscriber's terminal unit 1. In the subscriber's terminal unit 1, the installed Internet browser recognizes protocol element 9 and brings this to display 8 such that, if needed, a subsequent treatment of the data, such as a summation of the constituent costs, is undertaken for the sake of a better display.

The price information is displayed on the screen of terminal unit 1 by selecting and activating a corresponding field (pull-down or pop-up menu or a separate display window), or, alternatively, displayed directly. The displayed screen page, in the last instance with this method no longer corresponds to the original page 8, but is expanded, rather, in those cases in which the method according to the invention is contained proportionally within terminal unit 1, by the display of the data of protocol element 9.

As an option, additional menu elements 10 (ME) can be displayed, elements that activate different transfer options, such as the induction of a direct transmission, the disruption of the transmission, a subsequent, more cost-effective automatic transfer, for example, in POP operation (terminal unit 1 automatically induces the connection), or, in PUSH operation (service provider 6 automatically induces the connection), or, for example, an interim solution with immediate transmission to service provider 6 with temporary intermediate storage and subsequent transmission via the telecommunications network 3.

Furthermore, the introduction of a standard protocol element for all pending data transmissions, even HTML pages, for example, makes sense as an option which, especially in the case of rapid Internet accesses, such as 2 Mbps connections for instance, affords protection from the senseless delivery of large numbers of illustrated pages, for it is precisely here that high costs are caused by the high transmission band width that is available by virtue of the fact that the user can no longer disrupt a senseless transmission with a great scope of data in a timely manner before it was completed.

An individually programmable transmission limit, imposed by the user, renders the automatic delivery of all quantities of data that lie beneath that limit possible, and, from the prescribed limit onward, it leads to the requisite approval before the data is transmitted.

As an option, the introduction of an additional standard protocol element for all current data transfers makes sense, as a result of which a clear assignment of current costs to all transferred data is assured, especially in the case of volume-based billing within the telecommunications network.

Patent Claims

1. A process for the preventive and/or current display of transmission costs in the transmission of data of Internet and on-line data by a services/information provider to a subscriber, **characterized by the fact** that prior to a pending transfer of data, an additional protocol element (9) is transferred by the services/information provider (6) to the subscriber's terminal unit (1), which contains an indication of the pending volume of data, such that the protocol element (9) is recognized as such by transit nodes that are involved in the transmission and/or telecommunications networks (3, 4, 5) and is supplemented as needed by a corresponding partial cost proportion of its own and, ultimately, the protocol element (9) is evaluated in the subscriber's terminal unit (1), and a display of the total of pending transmission costs is displayed.
2. A process according to claim 1, **characterized by the fact** that the protocol element (9) contains additional price-relevant criteria, such as quality of service, priority of transmission, routing instructions, price group, contractual comments, degrees of security, an indication of the sender, etc.
3. A process according to claim 1 or 2, **characterized by the fact** that the evaluation at the terminal unit occurs by means of special options in the browser software that is used in the terminal unit (1), as a result of which the protocol element (9) is recognized as such, the corresponding calculations are performed, and the result is displayed.
4. A process according to claim 3, **characterized by the fact** that the browser software displays an additional menu (10) with alternative menu points on the terminal unit, by virtue of which the subscriber can institute the transmission of the software or, alternatively, refuse it, whereby corresponding information fields stand in a page of offerings that is transmitted by the service/information provider (6) and depicted on the terminal unit's offering page.

5. A process according to claim 4, **characterized by the fact** that the menu (10) encompasses additional menu points that initiate other activities at the terminal unit.
6. A process according to one of the claims 1 through 5, **characterized by the fact** that a
5 particular protocol element (9) that is transferred prior to every data transmission is introduced, thus rendering it possible for subscriber to elect whether he would like to receive these data or not.
7. A process according to one of the claims 1 through 6, **characterized by the fact** that an
10 individual user data or cost limit, beneath which an automatic delivery of data occurs, can be programmed by the user in combination with a standard protocol element (9) such that the user's terminal unit (1) automatically confirms all transmission demands.
8. A process according to one of the claims 1 through 6, **characterized by the fact** that a
15 data or cost limit that is set by the subscriber is automatically transmitted to the service/information provider (6), following which the service/information provider (6), for his part, automatically demands a confirmation/denial of the pending transmission by the subscriber for all data deliveries above this limit.
9. A process according to one of the claims 1 through 8, **characterized by the fact** that a
20 particular protocol element (9) is introduced for all current data transmissions and sent with every data transmission, as a result of which, a clear, current overview of costs is rendered possible, especially in the case of transmission networks that charge by volume.

Summary

The present invention suggests the introduction of an additional protocol element for a preventive display of transmission costs in the case of Internet and on-line services, at least for the transmission of larger quantities of data, such as, for example FTP files, sent by the provider, which can, at least, contain the scope of the data in the pending transmission, as well as other price criteria, optionally, which is recognized as such by the nodes (routers) that are involved in the transmission, and which may be expanded by its own proportional transmission prices, such that, ultimately, in the recipient's PC, on the browser for example, an evaluation of the protocol element, with a display of the costs, accordingly, appears on the screen, after which the subscriber can institute a transmission or disrupt it and optionally, take additional measures, such as, for example, activating the automatic instigation of the transmission at a later, more favorable time from the standpoint of costs.

In particular, the introduction of the protocol element for all pending transmissions of data, including, for example, HTML pages, makes sense as an option that affords protection against the senseless delivery of large numbers of illustrated pages, especially in cases of rapid Internet access.

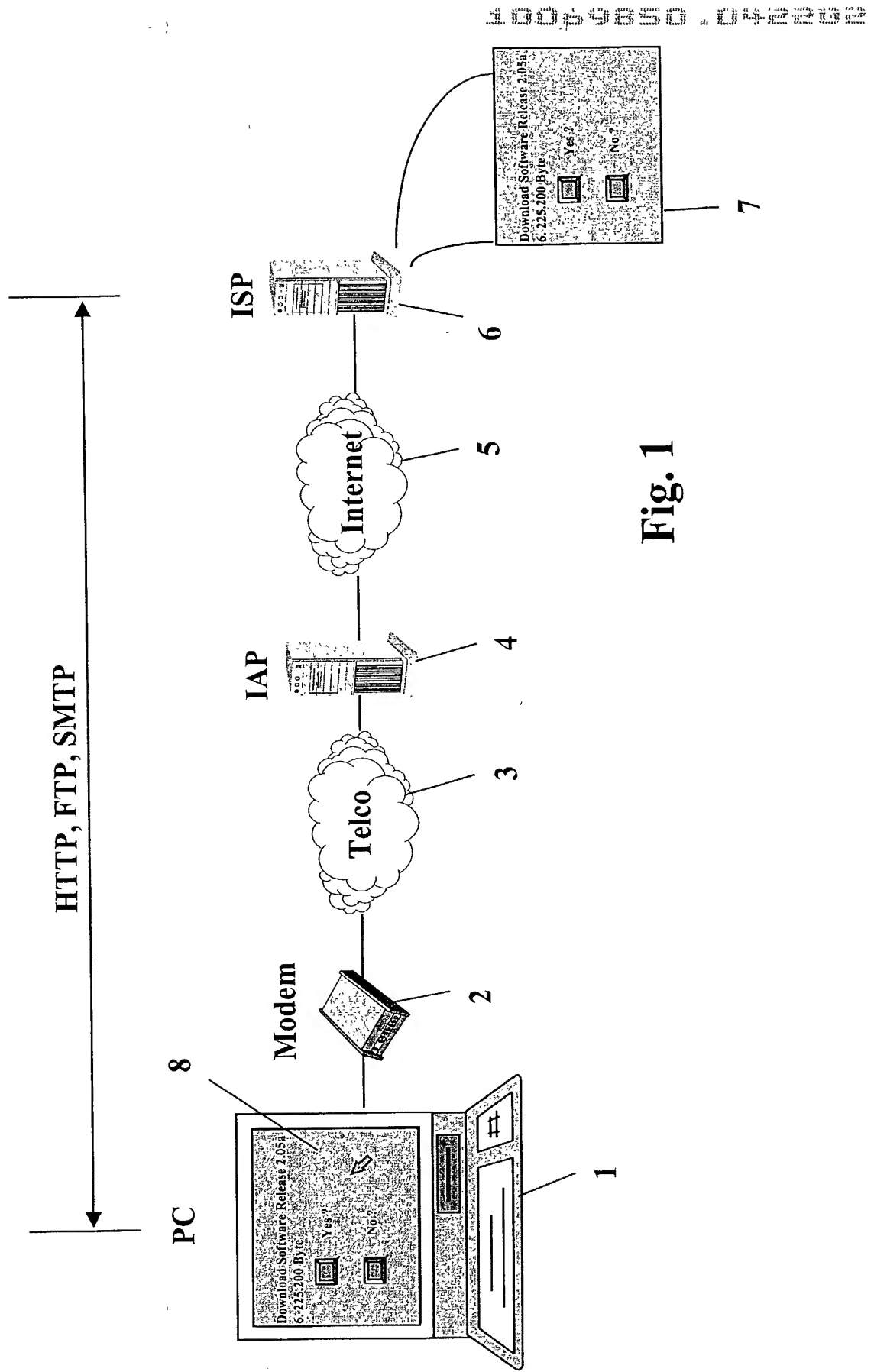


Fig. 1

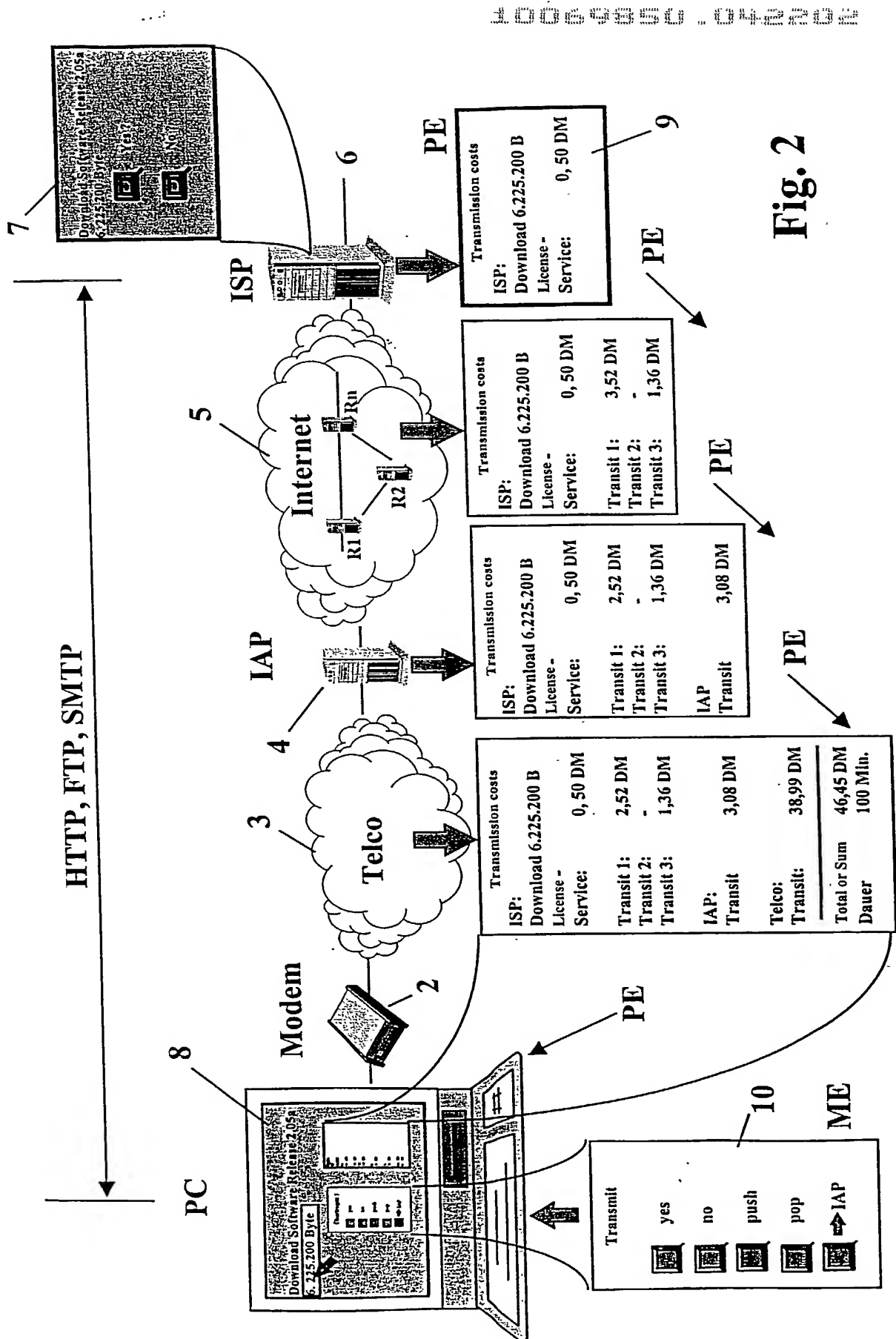


Fig. 2

Downloaded from: 192.168.1.1

RULE 63 (37 C.F.R. '1.63)
DECLARATION
FOR PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "METHOD FOR EFFECTING THE PREVENTIVE AND/OR CURRENT DISPLAY OF TRANSMISSION COSTS DURING THE TRANSMISSION OF INTERNET AND ONLINE DATA", the specification of which is identified as Attorney File No. 50029-00002 and attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability in accordance with 37 C.F.R. '1.56 as set forth on the attached sheet indicated Page 3 hereof and which I have read.

I hereby claim foreign priority benefits under 35 U.S.C. '119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
<u>Number</u>	<u>Country</u>	<u>Day/Month/Year Filed</u>	<u>Yes</u>	<u>No</u>
19941461.0	Germany	31 August 1999	XX	

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

<u>Application Serial No.</u>	<u>Filing Date</u>

I hereby claim the benefit under 35 U.S.C. '120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. '112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. '1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

Application Serial No.

Filing Date

Status: patented, pending, abandoned

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1) Inventor's Signature [Signature] Date 15.02.02

1-00 Inventor's Name (typed): Walter Keller

Citizenship: German

Residence: DümpeIstrasse 15, D-40880 Ratingen, Germany DEX

Post Office Address*: Same as Residence

*Complete Post Office Address in full if different from Residence, otherwise indicate that the Post Office Address is "Same as Residence."

37 C.F.R. ' 1.56(a) and (b)
DUTY TO DISCLOSE INFORMATION MATERIAL
TO PATENTABILITY

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by ' 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of a patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.*

*Note, 37 C.F.R. ' 1.97(h) states: "The filing of an information disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in ' 1.56(b)."